

Shuxin Ding

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Education

Ph.D., School of Automation, Beijing Institute of Technology, Beijing, 2012.9-2019.1. Adviser: Guoping Liu, Chen Chen and Bin Xin.

Joint Ph.D. Student, Center for Applied Optimization, Industrial and Systems Engineering, University of Florida, Gainesville, FL, 2016.9-2017.9. Adviser: Panos M. Pardalos.

B.Eng. in Automation, Beijing Institute of Technology, Beijing, 2008.9-2012.6.

B.Eng. in Electronic and Information Engineering, Exchange Student, The Hong Kong Polytechnic University, Hong Kong, 2011.1-2011.6.

Research Interests

Facility location, Stochastic Optimization, Robust Optimization, Evolutionary Algorithms, Risk Management, Multi-objective Optimization.

Publications

Journal Articles

W. Xu, C. Chen, S. Ding, P. M. Pardalos. "A bi-objective dynamic collaborative task assignment under uncertainty using modified MOEA/D with heuristic initialization". *Submitted to Expert Systems with Applications*.

S. Ding, C. Chen, B. Xin, P. M. Pardalos. "A bi-objective load balancing model in a distributed simulation system using NSGA-II and MOPSO approaches". *Applied Soft Computing*. 2018, 63, 249-267.

S. Ding, C. Chen, B. Xin, J. Chen, "Status and progress in deployment optimization of firepower units". *Kongzhi Lilun Yu Yingyong/Control Theory and Application* 2015, 32(12), 1569-1581.

S. Ding, C. Chen, J. Chen, B. Xin, "An Improved Particle Swarm Optimization Deployment for Wireless Sensor Networks". *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 2014, 18(2), 107-112.

Proceedings

Y. Wei, S. Ding, H. Fang, X. Zeng, Q. Yang. "Distributed Nonsmooth Robust Resource Allocation with Cardinality Constrained Uncertainty". 2019 CCC, *accepted*.

S. Sun, S. Ding. "Bunker hedging with Expected Loss Control by buffered Probability of Exceedance and Conditional Value-at-Risk". In *IAME 2017 Conference*. Kyoto, Japan.

Z. Sun, S. Ding. "Research on Standardized Development Method of Scenario for Combat Information Simulation System". In *Proc. of 33rd Chinese Control Conference (CCC)*. IEEE, 2014: 6298-6303.

S. Ding, J. Chen, C. Chen, B. Xin, "An improved deployment algorithm for wireless sensor networks based on Particle Swarm Optimization". *Proceedings of the Ninth China-Japan International Workshop on Internet Technology and Control Applications*, 2013: 138-142.

Reviewer for Journals

Applied Soft Computing

IEEE Transactions on Cybernetics

IEEE Access

Journal of Advanced Computational Intelligence and Intelligent Informatics

Research Experience

Optimization and Decision making in Networked System Deployment under uncertain environment, 2015-2016.

- Implemented a risk-averse rule to evaluate different facility location models through predefined scenarios

- Established covering location models with given distributions of demand points in different scenarios

- Programmed Matlab files via YALMIP and solved using CPLEX

Optimization and Decision making in Networked System Deployment under dynamic environment, 2014-2015.

- Implemented a node deployment system with dynamic environment including nodes' disruptions

- Established a maximal expected covering location model as planar location model and solved by Evolutionary Algorithms

- Developed an user interface system by VC++ with Oracle

Teaching

Beijing Institute of Technology

Final Year Project (B.Eng.): Instructor Assistant, 2014.

Wings' Project funded by Beijing Municipal Commission of Education: Instructor, 2013-2014.

Miscellaneous

C/C++, Visual Studio, Matlab, Cplex, Yalmip, SQL, Oracle, Python, SPSS, Minitab, VHDL.

Honors and Awards

JACIII Young Researcher Award, 2017.

Second Prize in National Postgraduate Mathematic Contest in Modeling, 2013.

Outstanding Postgraduate Student, 2012-2013.

Third Prize in the Programming Contest in Beijing Institute of Technology, 2012/2013.

Second Prize in National Undergraduate Electronic Design Contest, 2011.

Five-time recipient of People's Scholarship in Beijing Institute of Technology, 2008-2012.

Last updated: April 1, 2019